AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (original) Laser device comprising:

- an optical pumping means (10),

- an amplifying medium (2) excited by a laser beam (11) with a fundamental wavelength emitted by the optical pumping means, the output face (7) of this amplifying medium being cut according to the Brewster angle for said fundamental wavelength, and

- a birefringent crystal (4) for frequency doubling;

characterized in that it also comprises an isotropic medium (3) inserted between the output face (7) of the amplifying medium and the input face (8) of the birefringent crystal, the amplifying medium (2) and the birefringent crystal (4) being firmly attached to each other so as to constitute a monolithic resonant cavity; and in that the crystalline axis "c" of the birefringent crystal forms an angle θ_c which is not zero with respect to the orthogonal direction of the polarization of the fundamental wave, defined by the Brewster surface.

2. (original) Device according to claim 1, characterized in that the input face (8) of the birefringent

crystal is cut according to a slight angle ε with respect to the normal to the direction of propagation of the laser beam (5).

3. (previously presented) Device according to claim 1, characterized in that the output face (9) of the birefringent crystal is cut according to a slight angle ε with respect to the normal to the direction of propagation of the laser beam (5).

4. (previously presented) Device according to claim 2, characterized in that the angle ε is less than or equal to one degree.

5. (previously presented) Device according to claim 1, characterized in that the plane orthogonal to the direction of propagation of the fundamental wave contains the crystalline axis "c", this plane forming an angle with respect to the "a" and "b" axes of the birefringent crystal so as to obtain a phase matching at the operating temperature between the fundamental wave and the harmonic wave.

6. (previously presented) Device according to claim 1, characterized in that the amplifying medium (2) is constituted by yttrium aluminium garnet (YAG) doped with neodymium (Nd).

7. (original) Device according to claim 6, characterized in that the amplifying medium (2) is a cylindrical Nd: YAG the input face of which constitutes a plane mirror.

8. (previously presented) Device according to claim 1, characterized in that the pumping means (10) is a laser diode.

9. (previously presented) Device according to claim 1, characterized in that the birefringent crystal (4) is made from potassium niobate ($KNbO_3$).

10. (previously presented) Device according to claim 1, characterized in that the isotropic medium is the air.

11. (previously presented) Device according to claim 1, characterized in that the isotropic medium is made from potassium tantalate ($KTaO_3$).

12. (currently amended) Device according to claim 1, characterized in that the isotropic medium is constituted by an isotropic crystal the refractive index of which is ~~close to, for example~~ within 10% of[[,]] the refractive index of the birefringent crystal.

13. (currently amended) Method used in a laser device according to claim 1, characterized in that the optical path length covered by the laser beam is varied by translating the laser beam emitted by the pumping means with respect to the input face of the amplifier, the laser beam being moved along a plane in which the distance covered by the laser beam in the amplifying medium varies as a function of the latitude of the passage in the amplifying medium.

14. (previously presented) Device according to claim 2, characterized in that the output face (9) of the birefringent crystal is cut according to a slight angle ε with respect to the normal to the direction of propagation of the laser beam (5).

15. (previously presented) Device according to claim 3, characterized in that the angle ε is less than or equal to one degree.

16. (previously presented) Device according to claim 14, characterized in that the angle ε is less than or equal to one degree.

17. (new) Laser device comprising:

an optical pumping means (10);

an amplifying medium (2) excited by a laser beam (11) with a fundamental wavelength emitted by the optical pumping means;

a frequency doubling birefringent crystal (4); and

an isotropic medium (3) inserted between a final output face (7) of the amplifying medium and an input face (8) of the birefringent crystal, wherein,

the final output face (7) of the amplifying medium toward the birefringent crystal is cut according to the Brewster angle for said fundamental wavelength,

the amplifying medium (2) and the birefringent crystal (4) are attached to each other so as to constitute a monolithic resonant cavity, and

the crystalline axis "c" of the birefringent crystal forms a non-zero angle θ_c with respect to the orthogonal direction of the polarization of the fundamental wave, defined by the Brewster surface.

18. (new) The laser device of claim 17, wherein,

the isotropic medium (3) is constituted by potassium tantalate KTaO3.

19. (new) The laser device of claim 17, wherein,

the final output face (7) of the amplifying medium (2) is cut at the Brewster angle calculated from the index n1 and from the index n2 of the isotropic crystal (3), and

the amplifying medium and the isotropic crystal (3) are joined to each other on a portion of the final output face (7).

20. (new) The laser device of claim 19, wherein,

a final output face (8) of the isotropic crystal (3) is joined to the birefringent crystal (4),

the isotropic crystal (3) and the birefringent crystal (4) have colinear geometrical axes and approximately identical refractive index and diameter, and

an input face of the isotropic crystal (3) is cut at the final output face (7) so that the laser beam (5) exiting from the amplifying medium (2) and deflected by the final output face (7) passes through the isotropic and birefringent crystals (3, 4) parallel to their geometrical axes.